




# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,828	01/26/2004	Noboru Shibata	81790.0309	7925
26021	7590	08/10/2005	EXAMINER	
HOGAN & HARTSON L.L.P. 500 S. GRAND AVENUE SUITE 1900 LOS ANGELES, CA 90071-2611			NGUYEN, VIET Q	
			ART UNIT	PAPER NUMBER
			2827	

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/764,828	<b>Applicant(s)</b> NOBORU ET AL 	
	<b>Examiner</b> Viet Q. Nguyen	<b>Art Unit</b> 2827	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                       |                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                      | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____                                                |

## DETAILED ACTION

### *Election/Restrictions*

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

Group 1, claims 1-2 are drawn to a memory device having a memory cell array, a flag cell..., a plurality of data storage circuits..., and a write circuit which writes data on the first page into first memory cells..., when the data on the second page is written, writes data into the flag cell simultaneously selected by the word line, and thereafter **writes data on the first and second pages sequentially into a second cell adjacent first cells**, etc.;

Group 2, claims 3-5 are drawn to a memory device having a memory cell array, a plurality of data storage circuits..., and a write circuit which writes data on the first page into a first memory cell and a second memory cell..., then writes data on a second page into first cell, and **thereafter writes data on the first page into a third cell adjacent the second cells**, etc.;

Group 3, claims 6-7 are drawn to a memory device having a memory cell array, each cell having one of  $2^n$  threshold levels..., **a first and a second flag cell**..., a write circuit which divides an n number of pages composed of an n number of bits stored in plurality of cells selected by one of word lines into **first and second area**, etc.;

Group 4, claims 8-9 are drawn to a memory device having a memory cell array, each cell having one of  $2^n$  threshold levels..., an **(n-1) X i** number of flag cells..., a write

Art Unit: 2827

circuit which divides an  $n$  number of pages composed of an  $n$  number of bits stored in plurality of cells selected by one of word lines into an  $i$  number of areas,... writes the data into also the  $((k-2) \times i + 1)$ -th flag cell, and when writing into the  $i$ -th area on the  $k$ -th page, **writes data into also the  $(k-1) \times i$ -th flag cell;**

Group 5, claims 10-11 are drawn to a memory device having a memory cell array, each cell having one of  $2^n$  threshold levels..., an  $i$  number of flag cells..., a write circuit which divides an  $n$  number of pages composed of an  $n$  number of bits stored in plurality of cells selected by one of word lines into an  $i$  number of areas,... writes the data into also the **first** flag cell, and when writing into the  $i$ -th area on the  $k$ -th page, **writes data into also the  $i$ -th flag cell;**

Group 6, claims 12-14 are drawn to a memory device having a memory cell array, a first flag cell and a second flag cell, **a control section which, when writing data in a second page composed of the two bits into the cells, write specific data into first and second flag cells and which, when reading data in a first page , determines from data read whether the second page has been written...**, etc,

Group 7, claims 15-17 are drawn to a memory device having a memory cell array, each cell having one of  $2^n$  threshold levels..., an  $n$  number of flag cells..., a control section which, **when writing data in a  $k$ -th page composed of a  $k$  number of bits into the cells, write specific data into a  $k$  number of flag cells and which, when reading data in an  $i$ -th page , determines from data read whether the  $k$ -th page has been written...**, etc,

Group 8, claims 18-20 are drawn to memory device having a memory cell array, each cell having one of  $2^n$  threshold levels..., an  $(n + (n-1) + (n-2) \dots)$  number of flag cells..., ***a control section which, when writing data in a k-th page composed of a k number of bits into the cells, write specific data into a k number of flag cells and which, when reading data in an i-th page, determines from data read whether the k-th page has been written..., etc,***

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claim is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the


Art Unit: 2827

case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Viet Q. Nguyen whose telephone number is (571) 272-1788. The examiner can normally be reached on 7am-6pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoai Ho can be reached on (571) 272-1777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
V. Nguyen  
8/4/2005

Viet Q Nguyen  
Primary Examiner  
Art Unit 2827

